

1.1 IT Direction

CMS's IT Direction is defined by the following key elements:

- Enterprise-wide Business Objectives;
- A contextual framework or IT Vision for transforming the Agency's IT infrastructure;
- IT Objectives defining the tangible benefits of successfully fulfilling the vision; and
- IT Guiding Principles that assist CMS decision-makers in formulating key IT development and investment decisions.

These elements are discussed briefly below, along with their relationship to one another and to the ITA. The CMS IT Vision, IT Objectives, and IT Guiding Principles are covered completely in Attachments A, B, and C, respectively. CMS's Business Objectives are described thoroughly in the CMS Strategic Plan.

1.1.1 Business Objectives

In the CMS Strategic Plan, the Agency has identified 13 enterprise-wide Business Objectives across three broad categories.¹ These objectives portray CMS's business direction and provide the foundation for IT planning activities. The objectives are summarized in Exhibit 1-1.

⁴ CMS, *Health Care Financing Administration Strategic Plan*, September 1998 (Publication No. CMS-02135)

EXHIBIT 1-1. CMS BUSINESS OBJECTIVES

CATEGORY	OBJECTIVE	DESCRIPTION
Customer Services		
	CS-1	Improve beneficiary satisfaction with programs, services, and care.
	CS-2	Enhance beneficiary program protections.
	CS-3	Increase the usefulness of communications with beneficiaries.
	CS-4	Increase the usefulness of communications with constituents, partners, and stakeholders.
	CS-5	Ensure that programs and services respond to the health care needs of beneficiaries.
Quality of Care		
	Q-1	Improve health outcomes.
	Q-2	Improve access to services for underserved and vulnerable beneficiary populations.
	Q-3	Protect beneficiaries from substandard care.
Program Administration		
	PA-1	Build a high-quality, customer-focused team.
	PA-2	Enhance program safeguards.
	PA-3	Maintain and improve CMS's position as a prudent program administrator and an accountable steward of public funds.
	PA-4	Increase public knowledge of the financing and delivery of health care.
	PA-5	Improve CMS's management of information systems/technology.

1.1.2 IT Vision

At CMS, as in agencies and companies everywhere, business executives face major challenges in achieving their Business Objectives. Clearly, information plays a major role in providing the answers and insights they need to succeed. Senior executives at CMS, like their counterparts in other organizations, have consistently voiced their needs with respect to information and IT in the following areas:

- Access to data that is in a useful format and is available where and when needed, and the ability to share that data across CMS;
- Accurate and consistent (i.e., "reliable") information;
- Ability to adapt quickly to changing business needs; and

- Achievement of all the above at a reasonable, affordable cost.

CMS's IT Vision was developed in response to these needs. It is a contextual framework for future IT investment at CMS. It describes an environment in which existing and new systems can work more effectively by sharing information, and in which CMS can be more responsive to the demands of changing business needs and the promises of emerging technology. CMS's IT Vision represents a shift from a process-centric paradigm to a focus on information as the foundation of the technology infrastructure. The vision can be characterized as an information-centric model in which:

- Data management is a core function and data is treated as an enterprise asset;
- Individual business functions (such as claims processing, financial audits, or research queries) are supported by modular systems, reusable across programs; and
- All databases are readily accessible to the business functions through the use of standard interfaces.

In the past, CMS's information-processing operations were defined by the capabilities of existing technology. The focus was on how to adapt business processes to a highly centralized, proprietary technology base. However, in recent years IT has gone through a revolution with the introduction of widely accepted standards; new technologies, particularly in the area of networking; and reduced costs, making once-expensive storage and computing technologies affordable commodities. This revolution now makes it possible and necessary to adapt technology to support best business processes, and not the reverse. The key to controlling costs is managing information as the central element of the overall infrastructure. Such a strategy offers information consumers the most cost-effective and efficient access to reliable information, while freeing resources, enabling each business area to focus on information unique to its operations.

1.1.3 IT Objectives

To achieve the Business Objectives set forth in the CMS Strategic Plan, IT initiatives must support the business processes of the organization. The investment in IT requires the exercise of a capital investment process whereby these IT initiatives are evaluated based on criteria relating to the business benefit derived from the investment. CMS has identified eight key objectives for its IT Direction and architecture. These IT Objectives are summarized below.

The CMS IT Objectives are as follows:

- Objective 1: Meaningful information is readily accessible to CMS's beneficiaries, partners, and stakeholders.
- Objective 2: The security of those CMS information assets that support business processes is ensured.
- Objective 3: IT resources are carefully planned and deployed to maintain continuity of service.
- Objective 4: IT support to CMS's business processes is efficient (efficiency is an internal measure of the cost of doing business).

Objective 5: IT resources are maneuverable (flexible and adaptable).

Objective 6: IT is effectively applied to CMS's business needs (effectiveness is a measure of the value of IT to the business).

Objective 7: IT is effectively applied to support program integrity.

Objective 8: IT core competencies of CMS staff are targeted and strengthened.

Exhibit 1-2 shows the relationship between the enterprise-wide Business Objectives and the IT Objectives.

EXHIBIT 1-2. RELATIONSHIP BETWEEN CMS'S BUSINESS OBJECTIVES AND IT OBJECTIVES

Business Objectives		IT Objectives	Meaningful information is readily accessible to CMS's beneficiaries, partners, and stakeholders	The security of those CMS information assets that support business processes is ensured	IT resources are carefully planned and deployed to maintain continuity of service	IT support to CMS's business processes is efficient (efficiency is an internal measure of the cost of doing business)	IT resources are maneuverable (flexible and adaptable)	IT is effectively applied to CMS's business needs (effectiveness is a measure of the value of IT to the business)	IT is effectively applied to support program integrity	IT core competencies of CMS staff are targeted and strengthened
	Customer Services									
CS-1	Improve beneficiary satisfaction with programs, services, and care.		X			X	X	X		
CS-2	Enhance beneficiary program protections.		X				X	X		
CS-3	Increase the usefulness of communications with beneficiaries.		X				X	X		X
CS-4	Increase the usefulness of communications with constituents, partners, and stakeholders.		X				X	X		X
CS-5	Ensure that programs and services respond to the health care needs of beneficiaries.		X			X	X	X		
	Quality of Care									
Q-1	Improve health outcomes.		X				X	X		X
Q-2	Improve access to services for underserved and vulnerable beneficiary populations.		X				X	X		X
Q-3	Protect beneficiaries from substandard care.		X				X	X		X
	Program Administration									
PA-1	Build a high-quality, customer-focused team.		X				X	X		X
PA-2	Enhance program safeguards.		X	X	X	X	X	X	X	X
PA-3	Maintain and improve CMS's position as a prudent program administrator and an accountable steward of public funds.		X				X	X	X	
PA-4	Increase public knowledge of the financing and delivery of health care.		X				X	X		
PA-5	Improve CMS's management of information systems/technology.		X	X	X	X	X	X	X	X

1.1.4 IT Guiding Principles

Architecture is about optimizing the system as a whole, not optimizing the components of the system.

CMS, in developing and investing in IT, will face many choices driven by legislation, budgetary constraints, and changes in technology. CMS has identified 15 IT Guiding Principles to aid decision-makers in arriving at these key decisions. These IT Guiding Principles represent the values that will shape CMS's definition and implementation of its enterprise architecture. A more detailed discussion is provided in Attachment C, including a more complete description, the rationale, and the implications of each principle.

The IT Guiding Principles state that CMS will:

1. Support a single enterprise-wide ITA;
2. Unify planning, management, and governance of the ITA;
3. Use guidelines consistent with the Federal ITA framework;
4. Maintain a strategic ITA outlook;
5. Develop and implement IT projects using enterprise-wide methodologies;
6. Adopt open systems standards;
7. Enable the automated, active delivery of information across the enterprise;
8. Manage information and data as enterprise-wide assets;
9. Design and develop application software components for reusability and platform independence;
10. Use custom-developed software instead of commercial/government off-the-shelf products only when warranted and justified;
11. Leverage enterprise-wide licensing of vendor products;
12. Promote the use of Web-based technology;
13. Design and deploy application systems using a client/server model;
14. Ensure enterprise-wide integration of IT security; and
15. Deliver centralized IT support services throughout the enterprise.

1.2 ITA Scope

Exhibit 1-5 represents the scope of the CMS ITA. The scope of the ITA is often referred-to as the "enterprise." The external boundaries of the graphic shown in Exhibit 1-5 reflect the boundaries of the ITA. If the entities are outside the boundaries, they are not included in the scope of the ITA. Note that in this diagram, the "contractor" box falls across the boundary of the ITA scope. The ITA covers only the Government-owned software and equipment at the contractor sites. There are many external entities that have a relationship with the enterprise. Interface specifications (agreed-upon methods of communicating and sharing information) for these entities are also within the scope of the ITA.

FIGURE 1-3. SCOPE OF CMS'S INFORMATION TECHNOLOGY ARCHITECTURE

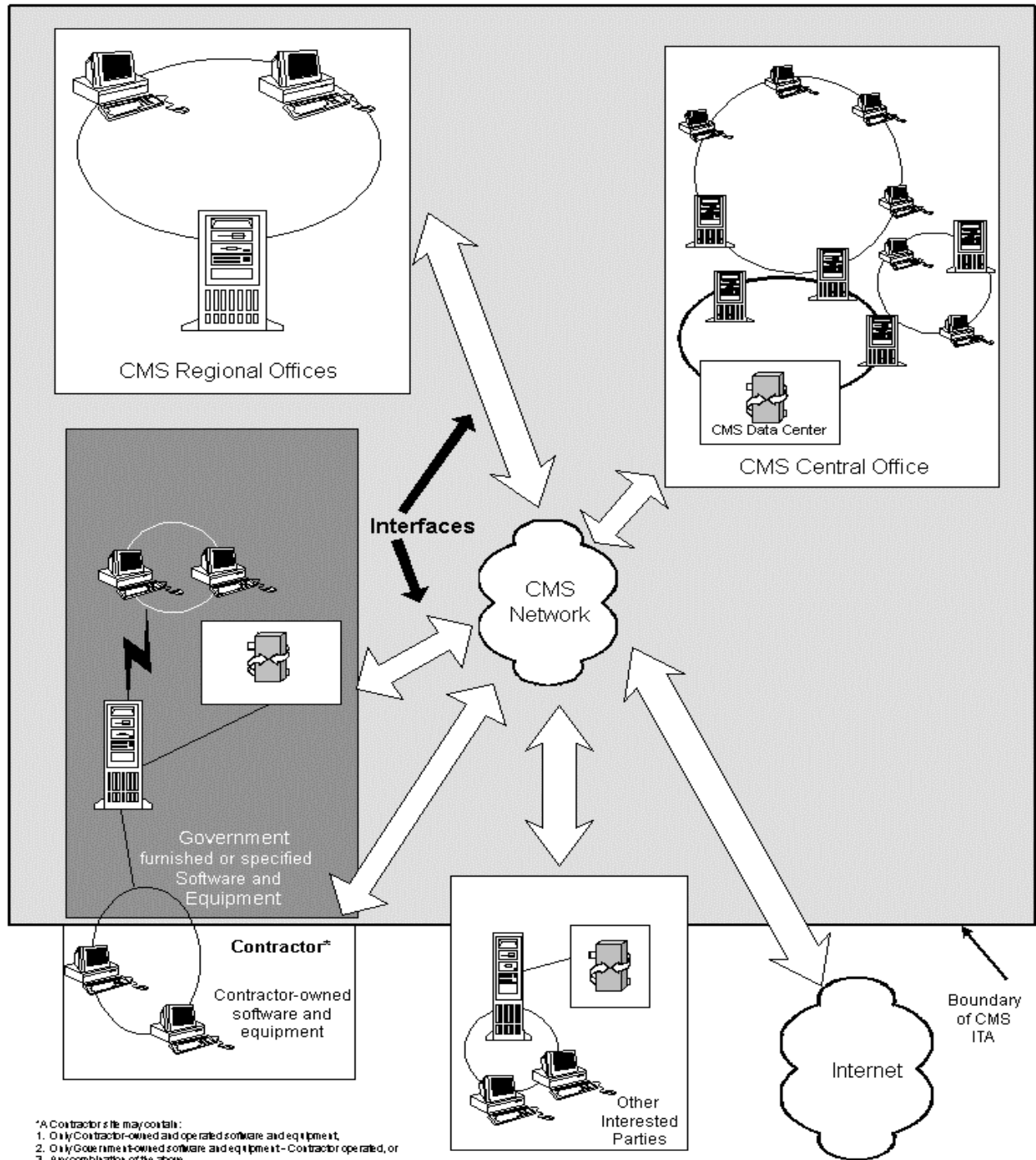


EXHIBIT 1-5. SCOPE OF CMS'S INFORMATION TECHNOLOGY ARCHITECTURE